

RAW SEQUENCE LISTING

DATE: 09/10/2001

PATENT APPLICATION: US/09/783,320

TIME: 11:21:51

Input Set : A:\LEX-0137-USA SEQLIST.txt

Output Set: N:\CRF3\09102001\I783320.raw

ENTERED

4 <110> APPLICANT: Walke, D. Wade
 5 Hu, Yi
 6 Nepomnichy, Boris
 7 Turner, C. Alexander Jr
 8 Zambrowicz, Brian

11 <120> TITLE OF INVENTION: Novel Human Kinases and Polynucleotides Encoding the Same
 13 <130> FILE REFERENCE: LEX-0137-USA

C--> 15 <140> CURRENT APPLICATION NUMBER: US/09/783,320
 C--> 15 <141> CURRENT FILING DATE: 2001-02-15

15 <150> PRIOR APPLICATION NUMBER: US 60/183,582
 16 <151> PRIOR FILING DATE: 2000-02-18
 18 <150> PRIOR APPLICATION NUMBER: US 60/184,014
 19 <151> PRIOR FILING DATE: 2000-02-22
 21 <160> NUMBER OF SEQ ID NOS: 50
 23 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 3108
 27 <212> TYPE: DNA
 28 <213> ORGANISM: homo sapiens
 30 <400> SEQUENCE: 1

31	atgaaaaacc	tggtactgaa	gataatatct	ggatcttttc	cacctgtgtc	tttgcattat	60
32	tcctatgata	tccgcagttt	ggtgtctcag	ttatttataa	gaaatcctag	ggatagacca	120
33	tcagtcaact	ccatattgga	gaaagggttt	atagccaaac	gcattgaaa	gtttctctct	180
34	cctcagctta	ttgcagaaga	attttgtcta	aaaacatttt	cgaagtgttg	atcacagcct	240
35	ataccagcta	aaagaccagc	ttcaggacaa	aactcgattt	ctgttatgcc	tgctcagaaa	300
36	attacaaagc	ctgccgctaa	atatggaata	ccttttagcat	ataagaaata	tggagataaa	360
37	aaattacacg	aaaagaaacc	actgcaaaaa	cataaacagg	cccatcaaac	tccagagaag	420
38	agagtgaata	ctggagaaga	aaggaggaaa	atatctgagg	aagcagcaag	aaagagaagg	480
39	ctggaattta	ttgaaaaaga	aaagaaacaa	aaggatcaga	ttattagttt	aatgaaggct	540
40	gaacaaatga	aaaggcaaga	aaaggaaaag	ttggaaagaa	taaataagggc	cagggaaacaa	600
41	ggatggagaa	atgtgctaag	tgctgggtga	agtgggtgaag	taaaggctcc	ttttctgggc	660
42	agtggaggga	ctatagctcc	atcatctttt	tcttctcgag	gacagtatga	acattaccat	720
43	gccatttttg	accaaatgca	gcaacaaaga	gcagaagata	atgaagctaa	atggaaaaga	780
44	gaaatatatg	gtcgaggtct	tccagaaaag	caaaaagggc	agctagctgt	agaaagagct	840
45	aaacaagtag	aagagttcct	gcagcgaaaa	cggaagcta	tgcaagaata	agctcgagcc	900
46	gaaggacata	tgggaatcct	gcaaaacctg	gcagctatgt	atggaggcag	gcccagctct	960
47	tcaagaggag	ggaagccaag	aaacaaagag	gaagaggttt	atctggcaag	actgaggcaa	1020
48	ataagactac	agaatttcaa	tgagcgccaa	cagattaaag	ccaaacttcg	tggtgaaaaag	1080
49	aaagaagcta	atcattctga	aggacaagaa	ggaagtgaag	aggctgacat	gaggcgcaaa	1140
50	aaaatcgaat	cactgaaggc	ccatgcaaat	gcacgtgctg	ctgtactaaa	agaacaacta	1200
51	gaacgaaaga	gaaaggaggc	ttatgagaga	gaaaaaaaag	tgtgggaaga	gcatttggtg	1260
52	gctaaaggag	ttaagagttc	tgatgtttct	ccacctttgg	gacagcatga	aacagggtggc	1320
53	tctccatcaa	agcaacagat	gagatctggt	atttctgtaa	cttcagcttt	gaaagaagtt	1380
54	ggcgtggaca	gtagttaaac	tgatacccg	gaaacttcag	aagagatgca	aaagaccaac	1440
55	aatgctattt	caagtaagcg	agaaataact	cgcagattaa	atgaaaatct	taaagctcaa	1500
56	gaagatgaaa	aaggaaatgca	gaatctctct	gatacttttg	agataaatgt	tcatgaagat	1560
57	gccaaagagc	atgaaaaaga	aaaatcagtt	tcactctgac	gcaagaagtg	ggaggcagga	1620

RAW SEQUENCE LISTING

DATE: 09/10/2001

PATENT APPLICATION: US/09/783,320

TIME: 11:21:51

Input Set : A:\LEX-0137-USA SEQLIST.txt

Output Set: N:\CRF3\09102001\I783320.raw

```

58 ggtcaacttg tgattcctct ggatgagtta aactagata catccttctc tacaactgaa 1680
59 agacatacag tgggagaagt tattaaatta ggtcctaata gatctccaag aagagcctgg 1740
60 gggaaaagtc cgacagattc tgttctaaag ataactggag aagctgaact acaacttcag 1800
61 acagaactat tagaaaaaac aactattaga agtgagattt ctcccgaagg ggaaaagtac 1860
62 aaacccttaa ttactggaga aaaaaagta caatgtattt cacatgaaat aaaccatca 1920
63 gctattgttg atttctctgt tgagacaaaa agtcccagat tcagtgaagg atctccacag 1980
64 atgtcattga aactggaagg aaatttagaa gaacctgatg atttggaac agaaattcta 2040
65 caagagccaa gtggaacaaa caaagatgag agcttgccat gcactattac tgatgtgtgg 2100
66 attagtgaag aaaaagaaac aaaggaaact cagtccggag ataggatcac cattcaggaa 2160
67 aatgaagttt ctgaagatgg agtctcgagt actgtggacc aacttagtga cattcatata 2220
68 gagcctggaa ccaatgattc tcagcactct aaatgtgatg tagataagtc tgtgcaaccg 2280
69 gaaccatttt tccataaggt ggttcattct gaacacttga acttagtccc tcaagttcaa 2340
70 tcagttcagt gttcaccaga agaatccttt gcatttcgat ctactcgcga tttaccacca 2400
71 aaaaataaaa acaagaattc cttgtcgatt ggactttcaa ctggtctggt tgatgcaaac 2460
72 aacccaaaga tgttaaggac atgttcaact ccagatctct caaagctggt cagaaccctt 2520
73 atggatgttc ccaccgtagg agatgttcgt caagacaatc ttgaaataga tgaaattaaa 2580
74 gatgaaaaca ttaaagaagg accttctgat tctgaagaca ttgtgtttga agaaactgac 2640
75 acagatttac aagagctgca ggcctcgatg gaacagttac ttagggaaca acctggtgaa 2700
76 gaatacagtg aagaagaaga gtcagtcttg aagaacagtg atgtggagcc aactgcaaat 2760
77 gggacagatg tggcagatga agatgacaat cccagtagtg aaagtgcctt gaacgaagaa 2820
78 tggcactcag ataacagtga tggtgaaatt gctagtgaat gtgaatgcga tagtgtcttt 2880
79 aaccatttag aggaactgag acttcatctg gagcaggaaa tgggctttga aaaattcttt 2940
80 gaggtttatg agaaaataaa ggctattcat gaagatgaag atgaaaatat tgaaatttgt 3000
81 tcaaaaatag ttcaaaatat tttgggaaat gaacatcagc atctttatgc caagattcct 3060
82 catttagtca tggcagatgg agcctaccaa gaagataatg atgaataa 3108

```

84 <210> SEQ ID NO: 2

85 <211> LENGTH: 1035

86 <212> TYPE: PRT

87 <213> ORGANISM: homo sapiens

89 <400> SEQUENCE: 2

```

90 Met Lys Asn Leu Val Leu Lys Ile Ile Ser Gly Ser Phe Pro Pro Val
91 1 5 10 15
92 Ser Leu His Tyr Ser Tyr Asp Leu Arg Ser Leu Val Ser Gln Leu Phe
93 20 25 30
94 Lys Arg Asn Pro Arg Asp Arg Pro Ser Val Asn Ser Ile Leu Glu Lys
95 35 40 45
96 Gly Phe Ile Ala Lys Arg Ile Glu Lys Phe Leu Ser Pro Gln Leu Ile
97 50 55 60
98 Ala Glu Glu Phe Cys Leu Lys Thr Phe Ser Lys Phe Gly Ser Gln Pro
99 65 70 75 80
100 Ile Pro Ala Lys Arg Pro Ala Ser Gly Gln Asn Ser Ile Ser Val Met
101 85 90 95
102 Pro Ala Gln Lys Ile Thr Lys Pro Ala Ala Lys Tyr Gly Ile Pro Leu
103 100 105 110
104 Ala Tyr Lys Lys Tyr Gly Asp Lys Lys Leu His Glu Lys Lys Pro Leu
105 115 120 125
106 Gln Lys His Lys Gln Ala His Gln Thr Pro Glu Lys Arg Val Asn Thr
107 130 135 140
108 Gly Glu Glu Arg Arg Lys Ile Ser Glu Glu Ala Ala Arg Lys Arg Arg

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/783,320

DATE: 09/10/2001

TIME: 11:21:51

Input Set : A:\LEX-0137-USA SEQLIST.txt

Output Set: N:\CRF3\09102001\I783320.raw

```

109 145          150          155          160
110 Leu Glu Phe Ile Glu Lys Glu Lys Lys Gln Lys Asp Gln Ile Ile Ser
111          165          170          175
112 Leu Met Lys Ala Glu Gln Met Lys Arg Gln Glu Lys Glu Arg Leu Glu
113          180          185          190
114 Arg Ile Asn Arg Ala Arg Glu Gln Gly Trp Arg Asn Val Leu Ser Ala
115          195          200          205
116 Gly Gly Ser Gly Glu Val Lys Ala Pro Phe Leu Gly Ser Gly Gly Thr
117          210          215          220
118 Ile Ala Pro Ser Ser Phe Ser Ser Arg Gly Gln Tyr Glu His Tyr His
119 225          230          235          240
120 Ala Ile Phe Asp Gln Met Gln Gln Gln Arg Ala Glu Asp Asn Glu Ala
121          245          250          255
122 Lys Trp Lys Arg Glu Ile Tyr Gly Arg Gly Leu Pro Glu Arg Gln Lys
123          260          265          270
124 Gly Gln Leu Ala Val Glu Arg Ala Lys Gln Val Glu Glu Phe Leu Gln
125          275          280          285
126 Arg Lys Arg Glu Ala Met Gln Asn Lys Ala Arg Ala Glu Gly His Met
127          290          295          300
128 Gly Ile Leu Gln Asn Leu Ala Ala Met Tyr Gly Gly Arg Pro Ser Ser
129 305          310          315          320
130 Ser Arg Gly Gly Lys Pro Arg Asn Lys Glu Glu Glu Val Tyr Leu Ala
131          325          330          335
132 Arg Leu Arg Gln Ile Arg Leu Gln Asn Phe Asn Glu Arg Gln Gln Ile
133          340          345          350
134 Lys Ala Lys Leu Arg Gly Glu Lys Lys Glu Ala Asn His Ser Glu Gly
135          355          360          365
136 Gln Glu Gly Ser Glu Glu Ala Asp Met Arg Arg Lys Lys Ile Glu Ser
137          370          375          380
138 Leu Lys Ala His Ala Asn Ala Arg Ala Ala Val Leu Lys Glu Gln Leu
139 385          390          395          400
140 Glu Arg Lys Arg Lys Glu Ala Tyr Glu Arg Glu Lys Lys Val Trp Glu
141          405          410          415
142 Glu His Leu Val Ala Lys Gly Val Lys Ser Ser Asp Val Ser Pro Pro
143          420          425          430
144 Leu Gly Gln His Glu Thr Gly Gly Ser Pro Ser Lys Gln Gln Met Arg
145          435          440          445
146 Ser Val Ile Ser Val Thr Ser Ala Leu Lys Glu Val Gly Val Asp Ser
147          450          455          460
148 Ser Leu Thr Asp Thr Arg Glu Thr Ser Glu Glu Met Gln Lys Thr Asn
149 465          470          475          480
150 Asn Ala Ile Ser Ser Lys Arg Glu Ile Leu Arg Arg Leu Asn Glu Asn
151          485          490          495
152 Leu Lys Ala Gln Glu Asp Glu Lys Gly Met Gln Asn Leu Ser Asp Thr
153          500          505          510
154 Phe Glu Ile Asn Val His Glu Asp Ala Lys Glu His Glu Lys Glu Lys
155          515          520          525
156 Ser Val Ser Ser Asp Arg Lys Lys Trp Glu Ala Gly Gly Gln Leu Val
157          530          535          540

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/783,320

DATE: 09/10/2001

TIME: 11:21:51

Input Set : A:\LEX-0137-USA SEQLIST.txt

Output Set: N:\CRF3\09102001\I783320.raw

```

158 Ile Pro Leu Asp Glu Leu Thr Leu Asp Thr Ser Phe Ser Thr Thr Glu
159 545                    550                    555                    560
160 Arg His Thr Val Gly Glu Val Ile Lys Leu Gly Pro Asn Gly Ser Pro
161                    565                    570                    575
162 Arg Arg Ala Trp Gly Lys Ser Pro Thr Asp Ser Val Leu Lys Ile Leu
163                    580                    585                    590
164 Gly Glu Ala Glu Leu Gln Leu Gln Thr Glu Leu Leu Glu Asn Thr Thr
165                    595                    600                    605
166 Ile Arg Ser Glu Ile Ser Pro Glu Gly Glu Lys Tyr Lys Pro Leu Ile
167        610                    615                    620
168 Thr Gly Glu Lys Lys Val Gln Cys Ile Ser His Glu Ile Asn Pro Ser
169 625                    630                    635                    640
170 Ala Ile Val Asp Ser Pro Val Glu Thr Lys Ser Pro Glu Phe Ser Glu
171                    645                    650                    655
172 Ala Ser Pro Gln Met Ser Leu Lys Leu Glu Gly Asn Leu Glu Glu Pro
173                    660                    665                    670
174 Asp Asp Leu Glu Thr Glu Ile Leu Gln Glu Pro Ser Gly Thr Asn Lys
175                    675                    680                    685
176 Asp Glu Ser Leu Pro Cys Thr Ile Thr Asp Val Trp Ile Ser Glu Glu
177        690                    695                    700
178 Lys Glu Thr Lys Glu Thr Gln Ser Ala Asp Arg Ile Thr Ile Gln Glu
179 705                    710                    715                    720
180 Asn Glu Val Ser Glu Asp Gly Val Ser Ser Thr Val Asp Gln Leu Ser
181                    725                    730                    735
182 Asp Ile His Ile Glu Pro Gly Thr Asn Asp Ser Gln His Ser Lys Cys
183                    740                    745                    750
184 Asp Val Asp Lys Ser Val Gln Pro Glu Pro Phe Phe His Lys Val Val
185                    755                    760                    765
186 His Ser Glu His Leu Asn Leu Val Pro Gln Val Gln Ser Val Gln Cys
187        770                    775                    780
188 Ser Pro Glu Glu Ser Phe Ala Phe Arg Ser His Ser His Leu Pro Pro
189 785                    790                    795                    800
190 Lys Asn Lys Asn Lys Asn Ser Leu Leu Ile Gly Leu Ser Thr Gly Leu
191                    805                    810                    815
192 Phe Asp Ala Asn Asn Pro Lys Met Leu Arg Thr Cys Ser Leu Pro Asp
193                    820                    825                    830
194 Leu Ser Lys Leu Phe Arg Thr Leu Met Asp Val Pro Thr Val Gly Asp
195                    835                    840                    845
196 Val Arg Gln Asp Asn Leu Glu Ile Asp Glu Ile Lys Asp Glu Asn Ile
197        850                    855                    860
198 Lys Glu Gly Pro Ser Asp Ser Glu Asp Ile Val Phe Glu Glu Thr Asp
199 865                    870                    875                    880
200 Thr Asp Leu Gln Glu Leu Gln Ala Ser Met Glu Gln Leu Leu Arg Glu
201                    885                    890                    895
202 Gln Pro Gly Glu Glu Tyr Ser Glu Glu Glu Ser Val Leu Lys Asn
203                    900                    905                    910
204 Ser Asp Val Glu Pro Thr Ala Asn Gly Thr Asp Val Ala Asp Glu Asp
205                    915                    920                    925
206 Asp Asn Pro Ser Ser Glu Ser Ala Leu Asn Glu Glu Trp His Ser Asp

```

RAW SEQUENCE LISTING

DATE: 09/10/2001

PATENT APPLICATION: US/09/783,320

TIME: 11:21:51

Input Set : A:\LEX-0137-USA SEQLIST.txt

Output Set: N:\CRF3\09102001\I783320.raw

```

207      930      935      940
208 Asn Ser Asp Gly Glu Ile Ala Ser Glu Cys Glu Cys Asp Ser Val Phe
209 945      950      955      960
210 Asn His Leu Glu Glu Leu Arg Leu His Leu Glu Gln Glu Met Gly Phe
211      965      970      975
212 Glu Lys Phe Phe Glu Val Tyr Glu Lys Ile Lys Ala Ile His Glu Asp
213      980      985      990
214 Glu Asp Glu Asn Ile Glu Ile Cys Ser Lys Ile Val Gln Asn Ile Leu
215      995      1000      1005
216 Gly Asn Glu His Gln His Leu Tyr Ala Lys Ile Leu His Leu Val Met
217      1010      1015      1020
218 Ala Asp Gly Ala Tyr Gln Glu Asp Asn Asp Glu
219 1025      1030      1035
221 <210> SEQ ID NO: 3
222 <211> LENGTH: 3645
223 <212> TYPE: DNA
224 <213> ORGANISM: homo sapiens
226 <400> SEQUENCE: 3
227 atggagaagt atgtagact acagaagatt ggagaagggt catttgaaa agccattctt      60
228 gttaaatcta cagaagatgg cagacagtat gttatcaagg aaattaacat ctcaagaatg      120
229 tccagtaaag aaagagaaga atcaaggaga gaagttgcag tattggcaaa catgaagcat      180
230 ccaaataattg tccagtatag agaatcattt gaagaaaatg gctctctcta catagtaatg      240
231 gattactgtg agggagggga tctgtttaag cgaataaatg ctcagaaagg cgttttgttt      300
232 caagaggatc agatttttga ctggtttgta cagatatgtt tggccctgaa acatgtacat      360
233 gatagaaaaa ttcttcatcg agacattaaa tctcagaaca tatttttaac taaagatgga      420
234 acagtacaac ttggagattt tggaattgct agagttctta atagtactgt agagctggct      480
235 cgaacttgca tagggacccc atactacttg tcacctgaaa tctgtgaaaa caaaccttac      540
236 aataataaaa gtgacatttg ggctctgggg tgtgtccttt atgagctgtg tacacttaaa      600
237 catgcttttg aagctggcag tatgaaaaac ctggtactga agataatata tggatctttt      660
238 ccacctgtgt ctttgcatca ttccatgat ctccgcagtt tgggtgtctca gttattttaa      720
239 agaaatccta gggatagacc atcagtcaac tccatattgg agaaagggtt tatagccaaa      780
240 cgcattgaaa agtttctctc tcctcagctt attgcagaag aattttgtct aaaaacattt      840
241 tcgaagtttg gatcacagcc tataccagct aaaagaccag cttcaggaca aaactcgatt      900
242 tctgttatgc ctgctcagaa aattacaaag cctgccgcta aatatggaat acctttagca      960
243 tataagaaat atggagataa aaaattacac gaaaagaaac cactgcaaaa acataaacag      1020
244 gcccatcaaa ctccagagaa gagagtgaat actggagaag aaaggaggaa aatatctgag      1080
245 gaagcagcaa gaaagagaag gctggaattt attgaaaaag aaaagaaaca aaaggatcag      1140
246 attattagtt taatgaaggc tgaacaaatg aaaaggcaag aaaaggaaa gttggaaaag      1200
247 ataaataggg ccagggaaca aggatggaga aatgtgtctaa gtgctggtg aagtggtgaa      1260
248 gtaaaaggctc cttttctggg cagtggaggg actatagctc catcatcttt ttcttctcga      1320
249 ggacagtatg aacattacca tgccattttt gaccaaatgc agcaacaaa agcagaagat      1380
250 aatgaagcta aatggaaaag agaaatatat ggtcgaggtc ttccagaaa gcaaaaaggg      1440
251 cagctagctg tagaaagagc taaacaagta gaagagttcc tgacgcgaaa acgggaagct      1500
252 atgcagaata aagctcgagc cgaaggacat atggtttatc tggcaagact gaggcaata      1560
253 agactacaga atttcaatga gcgccaacag attaaagcca aacttcgtgg tgaaaagaaa      1620
254 gaagctaata attctgaagg acaagaagga agtgaagagg ctgacatgag gcgcaaaaaa      1680
255 atcgaatcac tgaaggccca tgcaaatgca cgtgctgctg tactaaaaga acaactagaa      1740
256 cgaaagagaa aggaggctta tgagagagaa aaaaagtgtt gggaagagca tttggtggct      1800
257 aaaggagtta agagttctga tgtttctcca cctttgggac agcatgaaac aggtggctct      1860

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/783,320

DATE: 09/10/2001

TIME: 11:21:52

Input Set : A:\LEX-0137-USA SEQLIST.txt

Output Set: N:\CRF3\09102001\I783320.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application No
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date